REMARKS

Reconsideration of the above-referenced application in view of the following remarks is respectfully requested.

Claims 1-21 are pending in this application. Claims 9 and 11 have been amended.

Applicant thanks the Examiner for indicating the allowability of Claims 17 and 20.

Claims 16, 18, 19, and 21 stand rejected under 35 U.S.C. 102(b) as being anticipated by Shoemaker (U.S. Patent No. 3,581,198). Applicant respectfully traverses the rejection. Claim 16 includes the feature of "an analog device having a first and second input terminal comprising a first and second node and a pair of output terminals." Shoemaker does not disclose such a device. The Examiner states that "Even it is shown only one terminal, the output for the amplifier is a pair of output terminals." Applicant respectfully submits that there is no support in Shoemaker for this statement. In addition, Claim 16 includes the feature of "a first resistor coupled to said first node, and first resistor receiving a first input voltage; a second resistor coupled to said first node; a third resistor coupled to the said second node, said third resistor receiving a second input voltage; a fourth resistor coupled to said second node; and wherein said second resistor and said fourth resistor communicate a voltage at said first node and said second node." The Examiner proposes that Shoemaker's PBR23 is the claimed first resistor, PBR24 is the claimed second resistor, PBR22 is the claimed third resistor, and PBR21 is the claimed fourth resistor. However, neither PBR24 nor PBR21 is used to communicate a voltage at said first node and said second node. Indeed, at col. 4, lines 17-25, Shoemaker states that "[f]eedback line 26 from feedback amplifier 24 is coupled to input 12 of device 10

through a resistor R1 and either switch K5, or series connected switch K7b and PBR24 or series connected switch K12b and PBR23." From this statement, it is clear that PBR23 and PBR24 are alternatives used for the same purpose. Either the user in Shoemaker selects the path with PBR23 or the path with PBR24 for the input node 12. This is in contrast to the claimed in invention where both the first resistor and the second resistor are coupled to the first node and perform different functions (i.e. receiving a first input voltage, and communicating a voltage at the first node, respectively). For at least this reason, Applicant respectfully submits that Claim 16 is patentable over Shoemaker. Claims 18, 19, and 21 depend from Claim 16 and are therefore patentable over Shoemaker for at least the reasons presented above. Note also that Claim 21 highlights the importance of the claimed pair of output terminals not disclosed in Shoemaker.

Claims 1, 4, 6, 8-10, and 12-14 stand rejected under 35 U.S.C. 102(b) as being anticipated by Farmer (U.S. Patent No. 4,088,947). Applicant respectfully traverses the rejection. Claim 1 includes the steps of "providing a first voltage via a first resistor to said first node using a first input of said test circuit; and measuring a second voltage at the first node via a second input of said test circuit." In support of the rejection, the Examiner cites Farmer's -15V supply as the claimed "first voltage", cites Farmer's resistor 42 as the claimed "first resistor", and cites Farmer's node 46 as the claimed "first node". The Examiner fails to identify the element in Farmer that corresponds to the claimed "first input of the test circuit". With regard to the claimed "second voltage", the Examiner identifies Farmer's Q1 and Q2 which are Farmer's transistors 54 and 70. For the claimed "second input of the test circuit", the Examiner points to Farmer's element 56 which is the output of operational amplifier 36. The Examiner assumes the claimed "analog device" corresponds to Farmer's operational amplifier 36. The rejection is in error at least in part because element 56 in Farmer is clearly the output of the operational amplifier, not a second input of the test circuit. In view of Farmer's failure to anticipate all of the features of the claimed invention, Applicant respectfully requests that the rejection be

withdrawn. Claims 4, 6, and 8 depend from Claim 1 and are therefore patentable over Farmer for at least the reasons presented above.

Claim 9 has been amended to include the feature of "an analog device having a first and second input node and including an internal diode coupled to said first node, said internal diode coupling said first node directly to ground." Farmer does not teach or suggest a diode internal to operational amplifier 36. Therefore, Applicant respectfully submits that Claim 9 is patentable over Farmer. Claims 10, and 12-14 depend from Claim 9 and are therefore patentable over Farmer for at least the reasons presented above.

Claims 2, 7, 11, and 15 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Farmer. Claim 2 depends from Claim 1. Claim is patentable over Farmer for at least the reasons presented above. Claim 2 is indicative of the arrangement of the diode relative to the analog device. No arrangement suggested by Farmer results in the second voltage being a diode drop below ground. Therefore, Applicant respectfully submits that Claim 2 is patentable over Farmer. Regarding Claim 7, note that the +5V in Farmer is not applied to the non-inverting input of the operational amplifier 36 via resistor 34. The +5V is applied directly to the input of the operational amplifier. Since Farmer fails to teach or suggest all of the claimed features, Applicant respectfully submits that Claim 7 is patentable over Farmer. Regarding Claim 11, the Examiner asserts that Farmer's transistor Q1 achieves the same function as the claimed diode. However, the claimed diode (now in Claim 9) couples the first node directly to ground. Farmer's transistor Q1 is attached to the output of the operational amplifier. It is attached to the first node only through the feedback loop and therefore cannot perform the role of a diode coupled directly to ground. Therefore, Applicant respectfully submits that Claims 9 and 11 are patentable over Farmer. Regarding Claim 15, Farmer's resistors 42 and 50 are stated to be 47 ohms and 0.1 megaohm, respectively. Yet, the Examiner asserts that it would be obvious from Farmer's teaching to have these resistors be equal in value. Applicant respectfully disagrees. One skilled in the art would receive no

motivation from Farmer's teaching of such divergent resistor values to use Applicant's claimed configuration.

Claim 5 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Farmer in view of Shoemaker. Claim 5 depends from Claim 1. Claim 1 is patentable over Farmer for the reasons indicated above. Shoemaker does not cure the deficiencies of Farmer with respect to Claim 1. Therefore, Applicant submits that Claim 5 is patentable over the cited combination for at least the reasons presented above.

Applicant respectfully requests reconsideration and withdrawal of the rejections and allowance of Claims 1-21. If the Examiner has any questions or other correspondence regarding this application, Applicant requests that the Examiner contact Applicant's attorney at the below listed telephone number and address.

Respectfully submitted,

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